REMARKS

Reconsideration of the issues raised in the above referenced Office Action is respectfully solicited.

The objections to the drawings have been considered. Attached Figures 5 and 6 have been amended to include the legend ---Prior Art---. Therefore, withdrawal of the objections to the drawings is respectfully requested.

The objection to Claim 2 in the Office Action has been considered. Claim 2 has been amended as suggested. Therefore, withdrawal of the objection to Claim 2 is respectfully requested.

The rejection of Claim 1 under 35 USC §102(b) as being anticipated by Rath, GB 1 498 007 has been considered.

Rath discloses a disc brake including a caliper and a strip that comprises a shim between the brake pad and the hydraulic piston. The strip for the shim of Rath is disclosed as "aluminum", but various other metals or alloys may be employed.

Rath is directed to preventing squeal of disc brakes. There is no disclosure or suggestion of preventing corrosion of an aluminum caliper. There is no disclosure of the type of material utilized for the caliper.

Applicants' claimed invention provides an anti-squeal shim structure that is formed by an aluminum alloy plate.

As discussed above, Rath discloses an aluminum strip for a shim. Paragraph [0018] of Applicants' specification indicates that an aluminum plate does not function well as a shim due to its poor heat resistance and compressive strength. This problem is not recognized by Rath.

Applicants' Claim 1 now recites "an aluminum alloy plate having a compressive strength and heat resistance as in JIS 1085, 1080, 1070, 1050, 1100, 1200, IN00, IN30, 2014, 2017, 2219, 2024, 3003, 3203, 3004, 3104, 3005, 3105, 5005, 5052, 5652, 5154, 5254, 5454, 5082, 5182, 5083, 5086, 5N01, 6061, 7075 or 7N01". These alloys have the necessary heat

resistance and compressive strength to function properly as a metal plate in a shim structure.

The rejection relies on the sentence provided at page 1, lines 81-83 of Rath which recites "A suitable material for the strip is aluminum, but various other metals or alloys may be employed." This phrase is non-specific as to the other types of materials that could be used. Further, Rath specifically discloses the use of aluminum, which functions poorly as discussed at paragraph [0018] of Applicants' specification. Thus, one of ordinary skill in the art would not have been motivated to select alloys having the compressive strength and heat resistance as recited in Applicants' Claim 1.

As set forth in Applicants' paragraphs [0036] through [0041] and as illustrated in Tables 1 and 2 of Applicants' specification, Applicants' invention provides a significant improvement in minimizing squeal generation and minimizing corrosion. Rath does not disclose the problem of corrosion, much less the physical properties of a shim necessary to prevent such corrosion.

For the above reasons, reconsideration and allowance of independent Claim 1, and Claims 6 and 7 dependent therefrom, is respectfully requested.

Claim 6 recites specific aluminum alloy plates for the shim structure. Claim 7 recites elements provided in the aluminum alloy plate which are not disclosed by Rath. Therefore, allowance of Claims 6 and 7 is respectfully requested.

The rejection of Claim 2 under 35 USC §103 as being unpatentable over Rath in view of Applicants' admitted prior art disclosed at paragraph [0004] of Applicants' specification has been considered. Applicants admit that the use of an aluminum caliper instead of a steel caliper for automobile brake parts is known.

Claim 2, however, recites the combination of a shim structure comprising "an aluminum alloy plate", along with "an

aluminum caliper". As discussed above, Rath does not disclose an aluminum caliper.

Claim 2 further recites that "the aluminum alloy plate has little difference in electrode potential than the aluminum caliper so that corrosion due to a difference in electrode potential is minimized". The specific combination of an aluminum caliper in combination with an aluminum alloy plate is not disclosed in the applied prior art, much less disclosed to minimize corrosion.

For the above reasons, reconsideration and allowance of independent Claim 2, and Claims 3-5 dependent therefrom, is respectfully requested.

Claims 3-5 further distinguish the applied prior art. Claim 3 recites that the aluminum alloy plate has a compressive strength and heat resistance as in JIS 1085, 1080, 1070 … 7075 or 7N01. Rath and the admitted prior art do not disclose or suggest the compressive strength and the heat resistance recited in Claim 3.

Claim 4 further recites elements provided in the aluminum alloy plate and Claim 5 recites specific aluminum alloys for the aluminum alloy plate of the shim structure. These features are not disclosed in the applied prior art.

For the above reasons, reconsideration and allowance of Claims 3-5 is respectfully requested.

Independent Claim 8 recites a disc brake apparatus including "an aluminum caliper", a disc brake pad, "an anti-squeal shim structure comprising: an aluminum alloy plate, said aluminum alloy plate having greater heat resistance and compressive strength than an aluminum plate", a piston, and a disc rotor. As discussed above, Rath discloses the preferred use of an aluminum plate which does not have the required heat resistance and compressive strength as recited in Applicants' Claim 8.

Claim 8 further recites that "the aluminum alloy plate of said anti-squeal shim structure and said aluminum caliper have little difference in electrode potential so that corrosion of

said caliper due to a difference in electrode potential is minimized". As discussed above, the applied prior art does not disclose or suggest the prevention of corrosion, much less providing the proper aluminum alloy plate in combination with an aluminum caliper to have little difference in electrode potential.

For the above reasons independent Claim 8, and Claims 9-14 dependent therefrom, distinguish the applied prior art.

Claims 9-14 include other features that distinguish the applied prior art. For example, Claim 9 recites that said aluminum alloy plate has a compressive strength and heat resistance as in JIS 1085, 1080 … 7075 or 7N01. As discussed above, the applied prior art does not disclose specific aluminum alloys having the desired compressive strength and heat resistance for the metal plate of the shim.

Claim 13 recites that the aluminum alloy plate comprises one of JIS 1085, 1080, 1070, 1050, … or 7N01. As discussed above, the applied prior art does not disclose the specific aluminum alloys for the aluminum alloy plate that have the required compressive strength and heat resistance, much less the function of avoiding corrosion of an aluminum caliper. Claim 14 is allowable for the reasons discussed above with respect to Claims 4 and 7.

For the above reasons, reconsideration and allowance of Claims 9-14 is respectfully requested.

Further and favorable reconsideration is respectfully solicited.

Respectfully submitted,

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Encl: Drawing Figures 5 and 6 (1 sheet)
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Amendments to the Drawings

Figures 5 and 6 on drawing sheet 2 have been labeled as prior art.